

C A R O L I N A ARTS & SCIENCES

FALL • 2009

SOLAR HEROES

Pioneering solutions to the energy crisis

ALSO INSIDE:

- Innovative education:
10 years later
 - 'Abroad' in the
Cherokee Nation
 - 'Lost Boy' is found

THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL



Create, innovate, educate, connect

As classes get into full swing and the leaves start changing colors in Chapel Hill, I am reminded about what the “Carolina experience” means to students, faculty and alumni of the College of Arts and Sciences.

Our mission in the College is to create new knowledge, discover solutions to pressing problems, educate our graduate and undergraduate students to be leaders, and engage meaningfully with the state, nation and world.

In doing this, we give our students the best aspects of a liberal arts college experience, with all of the benefits of a major research university. In the pages of this magazine, we share stories about how our professors and students create, innovate, educate and connect.

- First-Year Seminars and Undergraduate Research, two innovative initiatives that are now 10 years old, have been giving students opportunities to work closely with our best teachers and scholars as early as their first year.
- Our faculty are fully immersed in seeking solutions to decreasing supplies of fossil fuel energy. A new \$17.5 million federal grant is stimulating solar energy research and economic development in a center led by distinguished chemist Thomas Meyer. A start-up company formed by College professors Chris Clemens, Charles Evans and Russ Taylor is pilot-testing a way to make solar energy more affordable and attractive for electric utilities.
- Our colleagues are creating new courses that encourage students to explore an increasingly interconnected world. American studies students experienced life “abroad” in the Cherokee Nation capital of Tahlequah, Okla., in an interdisciplinary summer course conducted with Northeastern State University.
- Communication studies professor Stephen Neigher, a professional screenwriter, involved UNC students in writing and producing a TV sitcom starring Durham, N.C., middle-school students, with an educational message targeting teens.

We are especially grateful to Bruce Carney, who served as interim dean of the College during a challenging year [see page 3]. Now, he continues to serve the University as interim executive vice chancellor and provost.

We are also thankful to N.C. taxpayers for the public support we receive through the State Legislature. Though budget cuts have made our mission more challenging, our faculty continue to teach the next generation of leaders.

As we weather challenging economic realities, private support is more important than ever. In this issue, we share exciting news about new gifts in key areas of the College, and we salute and thank our many donors and friends through our annual Honor Roll.

With your help, the College will continue to thrive as Carolina’s vital hub of learning, discovery and innovation.

— Karen M. Gil, Dean

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COVER PHOTO: Physicists Chris Clemens (foreground) and Charles Evans have developed solar collectors that magnify the sun's potential for electric power generation. (Photo by Steve Exum)

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We thank our many alumni and friends for their generous support of the College of Arts and Sciences.

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COMING SOON

American humorist and writer Roy Blount Jr., Global climate change expert James Hansen, Pulitzer Prize-winning author Edward P. Jones, and more

Students score big awards

Students in the College have won a string of distinguished scholarships, including three Luces, a Truman, two Goldwaters, a Udall and a Churchill. And two Rhodes Scholars were tapped for *USA Today's* All-USA College Academic First Team. Carolina is now first in the nation in the number of Luce Scholars, beating Harvard for the first time.

Nicholas Buell Anderson (public policy '09) of Weston, Conn.; **Rachel Alison Harper** (biology '09) of Cary, N.C.; and **Jennifer Ellen Cimaglia** (archaeology '07) of Suwanee, Ga., won Luce Scholarships, supporting a year of learning in East and Southeast Asia.

- **Anderson**, a Robertson Scholar, spent a summer living with an indigenous tribe in Brazil for his honors thesis project. He co-founded the Durham Teachers Warehouse, a nonprofit which has provided \$70,000 in school supplies to classrooms in Durham. He plans to attend law school.

- **Harper** conducted research for more than two years in a genetics lab at UNC's Lineberger Comprehensive Cancer Center. She decided to become a doctor on a visit to New Orleans after Hurricane Katrina.

- **Cimaglia** won a Fulbright Scholarship for an internship with the United Nations Educational, Scientific and Cultural

Organization in Paris. She also conducted research at the Bulgarian Archaeological Institute and Museum.

Senior Matthew Joseph Garza of Stockton, Calif., was awarded the Truman Scholarship in support of graduate studies toward a public service-related degree. He spent one summer supervising a public health project in Paraguay dealing with sanitation and nutrition. An economics major and Morehead-Cain Scholar, he hopes to help organizations providing aid to developing countries.

Senior Marion Boulicault of London won a Morris K. Udall Scholarship for environmental studies. A Morehead-Cain Scholar and environmental science major, she studied at Can Tho University in Vietnam, where she researched water rights issues. She hopes to earn a master's degree in environmental management and a law degree.

Juniors Ann Liu of Raleigh, N.C., and **Varun Puvanesarajah** of Chapel Hill, N.C., won Barry M. Goldwater Scholarships for pursuing careers in mathematics, the natural sciences or engineering. The Goldwater



LEFT TO RIGHT: Scholarship winners (from left to right) Aisha Saad, Matt Garza, Rachel Harper, Varun Puvanesarajah and Katie Deigan.

provides support for undergraduate studies.

- **Liu**, a double-major in biochemistry and business, will seek a doctoral degree and hopes to teach at a university. An Honors student, she founded a science research magazine, *Carolina Scientific*.

- **Puvanesarajah**, a double-major in biochemistry and mathematics, hopes to earn doctoral and medical degrees and conduct pharmaceutical research. He is in the Honors Program and a member of the Carolina Research Fellowship Program.

Rhodes Scholars Aisha Ihab Saad and **Elisabeth "Lisette" Yorke** '09 [see spring 2009 *Carolina Arts & Sciences*] were selected for *USA Today's* 2009 All-USA College Academic First Team.

- **Saad** of Cary, N.C., majored in environmental health sciences in the UNC Gillings School of Global Public Health and in Spanish in the College. A Morehead-Cain Scholar, Saad interned in the blood diseases ward of Cairo University's Teaching Hospitals. She is interested in environmental law.

- **Yorke**, of Hillside Boularderie, Nova Scotia, majored in biology. Also a Morehead-Cain Scholar, she conducted AIDS research in Thailand and Cambodia. She hopes to become a doctor.

Katherine Deigan (chemistry '09) of Clayton, N.C., received a Winston Churchill Scholarship for graduate work at the University of Cambridge in England. As an undergraduate she worked in the lab of chemistry professor Kevin Weeks [see story on page 23]. Results of her work landed her name in a prestigious journal. She plans to pursue a master's in pathology, then seek a doctorate.



Anthony Dean Griffey

Tenor Anthony Dean Griffey teaches at UNC

Carolina music students are studying this year with two-time Grammy Award-winning tenor **Anthony Dean Griffey**. The High Point, N.C., native is teaching as

artist-in-residence in the department of music for 12 weeks during the year.

Between opera and concert appearances around the world, Griffey will teach master classes for voice students and Kenan Scholars — music students with full, four-year merit scholarships. He will provide one-on-one coaching for voice students, work with students in the University Chamber Players and the UNC Opera and speak in classes.

Two master classes are open to the public: Sept. 21 at 4 p.m. in Person Recital Hall and March 15 at 4 p.m. in Hill Hall auditorium.

"We are thrilled," said Terry Rhodes, professor and chair of the music department and director of UNC Opera. "His teaching and coaching will enhance the strong reputation in the arts that Carolina is building through its academic and performance programs in the College of Arts and Sciences and Carolina Performing Arts. These collaborations are enriching the lives of our students, faculty and community."

The residency is supported by the College and the Office of the Executive Director for the Arts.



Carney takes on new leadership roles

After serving as interim dean of the College for one year, **Bruce W. Carney** has been tapped as the interim executive vice chancellor and provost of the University. He replaces Bernadette Gray-Little, the former College dean and University provost, who has become chancellor of the University of Kansas. Carney will remain in his new position while Carolina searches for its next provost.

Through strategic and transparent planning as interim dean of the College, Carney led Carolina's largest academic unit through one of the University's most fiscally challenging years. Chancellor Holden Thorp said that he appointed Carney to the interim provost position because of his proven leadership abilities and extensive experience.

"Bruce and I have worked together in previous administrative roles, and I'm confident that his skills and integrity will serve us well," Thorp said.

Carney, the Samuel Baron Distinguished Professor of Physics and Astronomy, is also a leader in his field. He has been re-elected chair of the board of directors of the Association of Universities for Research in Astronomy. The international consortium of universities and nonprofits manages two national observatories for the National Science Foundation (NSF) and the Space Telescope Science Institute for NASA.

He is a scholar of optical and infrared photometry and spectroscopy, stellar populations and globular cluster ages, with many publications to his credit, including the book, *Star Clusters* (2001).

Among many leadership positions, Carney has served as president of the Astronomical Society of the Pacific. He has also served on the Astronomy and Astrophysics Advisory Committee that advises the NSF, NASA, the Department of Energy, and the Office of Science and Technology Policy.

Carney was instrumental in shaping the vision and raising funds for the SOAR Telescope in Chile, which UNC faculty and students use on site and remotely from Chapman Hall. He chaired the department of physics and astronomy and has also been involved in planning and developing the Carolina Physical Sciences complex, the largest construction project in the University's history. •

Chemistry scholars win \$600,000 NSF awards

The National Science Foundation recognized assistant chemistry professors **Garegin Papoian** and **Muhammad Yousaf** with \$600,000 awards.

The Faculty Early Career Development awards support the research of promising young faculty in the early stages of their careers in the chemical and life sciences. The grants will be awarded over a five-year period.

Papoian will use the award to develop detailed computational models of the way cells of higher organisms move around and sense their environment. Cell motility plays a key role in human biology and disease, contributing to such important processes as embryonic development, wound repair and cancer metastasis.

Yousaf will use the award to develop new surface chemistries to study how mammalian cells adhere, polarize and migrate, which is fundamental to many biological processes, including wound healing, metastasis, inflammation and development. •

Armitage gets an 'A+' for teaching

British literary scholar **Christopher Armitage** has never been shy about dramatizing an important lesson. Students and colleagues may recall when he dressed up as William Richardson Davie, the University's main founder, for an outdoor celebration during the campus bicentennial in the 1990s.

The professor mounted a steed for the historic occasion, though his riding skills were a bit rusty. When it was announced that William R. Davie was riding to the podium, flash bulbs popped, the horse shied and Professor Armitage was lucky to escape with his health and tri-cornered hat.



LEFT: *Christopher Armitage portrayed William R. Davie at the Carolina First campaign kickoff.*

After 42 years of teaching Shakespeare and Canadian literature to students, Armitage,

Bowman and Gordon Gray Professor in the department of English and comparative literature, received the Award for Excellence in Teaching at commencement in May. The honor is presented annually by the UNC Board of Governors to just one faculty member from each campus.

Besides earning numerous previous awards for teaching excellence, the Manchester native is known for leading an annual summer study abroad program to London and his alma mater, St. Edmund Hall of Oxford University.

He said students or alumni on the trip typically call a well at St. Edmund, founded in the 13th century, "the really Old Well." They also take turns reading more than 100 poems by the Bard in a churchyard round-robin.

"We see at least 10 plays, mostly Shakespeare," Armitage said of his program in Great Britain. "It's the best way to study Shakespeare." •

MILITARY HISTORIAN WINS TWO TOP PRIZES

• Richard Kohn,

professor of history, and peace, war and defense, has won top prizes from two historical associations.

He received the 2008 American Historical Association's Herbert Feis Award. Established in 1984, the prize is presented annually to recognize distinguished contributions to public history during the previous 10 years.

He also received the 2009 Samuel Eliot Morison Prize from the Society for Military History. The award honors not any one achievement but a body of work that contributes to the field of military history.

Kohn is an expert on U.S. military policy and strategy, presidential war leadership and civil-military relations. He previously taught at the City College of New York, Rutgers University and the National and U.S. Army War Colleges. He also served as chief of Air Force history for the U.S. Air Force.

His is working on a book on *The President at War: Presidential War Leadership from George Washington to George Bush*, analyzing the challenges of successful war leadership by presidents of the United States. •

PLANT BIOLOGIST HONORED FOR PIONEERING WORK

• **Jeff Dangl** has won two awards for his pioneering work in plant biology.

Dangl, the John N. Couch Professor of Biology, received the 2009 Stephen Hales Prize from the American Society of Plant Biologists (ASPB).

Dangl also won the 2009 award from the International Society for Molecular Plant-Microbe Interactions (IS-MPMI) for his innovative research.

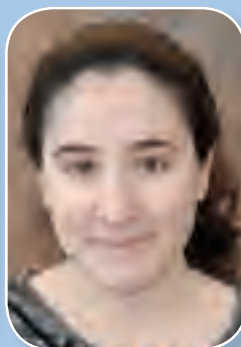
Through studying the immune systems of plants, Dangl is addressing one of the most pressing problems facing the world today — ensuring an adequate food supply.



Richard Kohn



Jeff Dangl



Svetlana Lazebnik



Carl W. Ernst

His work centers around the study of plant-pathogen interactions — discovering how to make plants more resistant to disease — using *Arabidopsis thaliana*, which is commonly called thale cress.

ASPB, headquartered in Rockville, Md., publishes the two most frequently cited plant science journals, *The Plant Cell* and *Plant Physiology*.

IS-MPMI publishes the journal, *Molecular Plant-Microbe Interactions*.

Dangl, who is an associate director of the Carolina Center for Genome Sciences, was inducted into the National Academy of Sciences in 2007. He became a fellow of the American Association for the Advancement of Science in 2004. •

COMPUTER SCIENTIST NAMED MICROSOFT FELLOW

• **Svetlana Lazebnik**, an assistant professor of computer science, has won a Microsoft New Faculty Fellowship Award.

The awards from Microsoft Research recognize and support early-career professors engaged in innovative computing research. Five recipients are selected each year from a pool of about 100 nominees.

Lazebnik, who joined the computer science department in July 2007, is exploring new ways for computers to interpret digital images. She is designing methods to search large digital image collections based on what can be seen in the picture, rather than what is described in textual tags.

Lazebnik said the fellowship allows her to test even more possibilities: "This fellowship will enable me to explore a lot more and do things that are maybe more

speculative or long-term in my area of research."

She is the second UNC faculty member to receive the award. Wei Wang, associate professor of computer science, received the fellowship in 2005. •

ONLINE EXTRAS: Watch a video of Lazebnik describing her research at college.unc.edu.

ERNST EARNS A TRIPLE

• **Carl W. Ernst**, director of the Center for the Study of the Middle East and Muslim Civilizations, has won three top honors.

Ernst, the William R. Kenan, Jr. Distinguished Professor of Religious Studies, was elected a fellow in the American Academy of Arts & Sciences, one of the nation's oldest and most prestigious honorary societies.

Ernst also received a Guggenheim Fellowship [see story on other winners on page 5] to support his translation and study of the poetry of al-Hallaj, the Sufi martyr who was executed in Baghdad in 922. And the Iranian Ministry of Science, Research and Technology awarded Ernst the Farabi International Award in the Humanities for his 1996 book on the 12th-century Persian Sufi Ruzbihan Baqli.

Ernst specializes in Islamic studies, with a focus on West and South Asia.

Ernst's most recent book, *Following Muhammad: Rethinking Islam in the Contemporary World* (UNC Press, 2003), has received several international awards, including the 2004 Bashrahil Prize for Outstanding Cultural Achievement.

At Carolina since 1992, he earned his doctorate in religion from Harvard University in 1981. •

Connecting hospitals in Ghana with U.S. medical supplies

A nonprofit developed by UNC students fills a critical missing link by connecting hospitals in Ghana with surplus U.S. medical supplies.

MedPLUS, a team of seniors who graduated in May from the College, won two key awards in a contest sponsored by the Carolina Entrepreneurial Initiative that helped launch their venture. They won first place in the social track division and the People's Choice Award in the 2009 Carolina Challenge competition.



LEFT: MedPLUS team members (from left) Lauren Slive, Emily Nix and Emma Lawrence. BELOW: (Top photo) Lauren Slive with pediatric patients in Lawra District Hospital in Ghana. (Bottom photo) A worker sorts and organizes supplies delivered to the hospital in summer 2008.

Team members are **Lauren Slive**, a public policy major; **Emma Lawrence**, public policy and psychology major; and **Emily Nix**, mathematics and economics major. Economics major **Phil Gennett** served as adviser.

Their business plan explained how MedPLUS would not only connect hospitals in developing countries with needed medical supplies, but also empower the hospitals with a greater role in the process, resulting in more efficient and cost-effective methods of procurement.

The idea for MedPLUS grew from a trip Lawrence and Slive took to Ghana in 2007. That experience led them to start Project Heal, a nonprofit medical outreach organization serving residents of Ghana. Project Heal is now a special initiative of UNC's Campus Y.

"From our experience with Project Heal, we began to think about ways to make distributing health-care supplies more efficient and effective," said Slive. Team members began working with MedWish International, a Cleveland-based nonprofit that provides humanitarian aid through recovery and recycling of donated medical supplies.

With MedPLUS, hospitals in Ghana pay only the cost of shipping recovered supplies, saving thousands of dollars previously spent on purchasing supplies at full price. This reduces their reliance on foreign aid.

Before launching the nonprofit, MedPLUS had signed up four client hospitals in Ghana. Medical supplies are being provided by MedWish International and other surplus suppliers and recovery warehouse organizations throughout the United States. •

ONLINE EXTRAS: More on MedPLUS at college.unc.edu.

Five tapped as Guggenheim Fellows

Five professors from the College were awarded fellowships from the John Simon Guggenheim Memorial Foundation to support research and artistic creation.

This year's recipients and the focus of their awards are:

- **Thomas J. Campanella**, associate professor of city and regional planning: "A history of 'Soul City,' North Carolina, and the civil rights movement."
- **Martin Doyle**, associate professor of geography and member of the UNC Institute for the Environment: "A history of American rivers."

- **Carl W. Ernst**, William R. Kenan Jr. Distinguished Professor of Religious Studies and director of the Carolina Center for the Study of the Middle East and Muslim Civilizations: "A translation and a study of the poetry of al-Hallaj." [see related story on Ernst on page 4.]

- **Evelyn Huber**, Morehead Alumni Distinguished Professor and chair of the political science department, and **John D. Stephens**, Gerhard E. Lenski Jr. Distinguished Professor of Political Science and Sociology, and director of the UNC Center for European Studies: "Politics, development, social policy, and poverty and inequality in Latin America." •



Thomas J. Campanella



Martin Doyle



Carl W. Ernst



Evelyn Huber



John D. Stephens

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Dan Sears



Allen Glazner



Dan Sears



years later

First-year seminars and undergraduate research have transformed the Carolina experience

By Kim Weaver Spurr '88

a

first-year seminar

with a biodiversity expert transformed Michael Foote's academic experience at Carolina. And a summer research fellowship at the end of Diana Gergel's sophomore year forever changed her life.

The members of the Chancellor's Task Force on Intellectual Climate, formed in the late 1990s, would be pleased. Their report and recommendations launched two innovations in the College of Arts and Sciences — the First Year Seminar Program and the Office for Undergraduate Research — that over the course of a decade have profoundly enhanced the Carolina experience for thousands of Tar Heels and become models for other schools.

Gergel graduated in May with an undergraduate degree in history and political science. The research bug bit early. With the help of a Summer Undergraduate Research Fellowship (SURF), she spent the summer after her sophomore year working for the U.S. Holocaust Memorial Museum in Washington, D.C., and doing research at the Library of Congress on South Africa's Truth and Reconciliation Commission (TRC). She received \$5,000 as a John W. Pope Summer Research Fellow, a competitive award established by the

continued

SPREAD: (from left) Carolyn Tidwell and Manasi Tannu enact a scene from a documentary drama on Facebook and technology in their first-year seminar class.



John Meyer



LEFT TO RIGHT: Cameron Taylor at a market in Cape Maclear, Malawi. • Students in Allen Glazner's first-year seminar on field geology take a one-week trip to California. • First-year seminar students rehearse their documentary drama, "Facebook Friendzy." • John Meyer photographed pediatric patients in a hallway in Honduras. • Diana Gergel at the Cape of Good Hope in South Africa.

John William Pope Foundation of Raleigh, N.C. The next summer, she headed to Cape Town to refine her honors thesis, a study of survivors' memories of apartheid and their experiences with the TRC. She plans to pursue a Ph.D. in African history.

"I stayed in Soweto, the largest township. That was one of the most life-changing experiences of the entire summer," Gergel said. "I think doing research in a way that engages you with people really has the potential to change

your outlook on life and changes the way you see things around you."

Foote '11 recalls fondly the first-year seminar, "Biologists as Entrepreneurs," which has influenced the rest of his studies. Students in the class, taught by biology professor Seith Reice, learned how to write a grant proposal from start to finish. Reice is a recognized expert on stream diversity and the author of *The Silver Lining*, about the positive effects that forest fires, floods and natural disasters can have on ecosystems.

Foote, a biology and philosophy major, admits the class was intimidating at first.

"But it's probably the most practical course I've taken at Carolina," said Foote, whose proposal combined breast cancer research and nanotechnology. "I didn't know how to set up the research, how to get money. Dr. Reice brought in all these amazing speakers. They gave us a checklist of things to do if you want to be successful."

New professorships help undergraduate research grow

By Kim Weaver Spurr '88

Jane Danielewicz, a professor of English and comparative literature, is enthusiastic about the value of undergraduate research in guiding students "to be amazed and stunned by what they discover."

The College of Arts and Sciences has recognized her dedication by naming her one of four inaugural Research and Undergraduate Education Term Professors in the four divisions of the College: fine arts, social and behavioral sciences, humanities, and natural sciences and mathematics.

A recommendation of the 2006 Quality Enhancement Plan, these professorships will enhance the culture of undergraduate research at UNC.

"When students come to college, it's about developing an identity ... so finding out about research connects the students to their senses of curiosity and creativity," said Danielewicz, the Richard Grant Hiskey Distinguished Term Professor in Research and Undergraduate Education. "You have an opportunity to help them claim a space within the university. We're a research university, and students should be a part of this when they first walk onto this campus."

Danielewicz is also a champion of engaging graduate students as mentors for undergraduate research. She works with

Graduate Research Consultants (GRCs) in her courses on autobiography and life-writing genres.

The Office for Undergraduate Research began the GRC program in 2003 to enable faculty to expand opportunities for undergraduate research in their classes. The graduate students work with the

instructor and the students on planning, carrying out and communicating their research. The program has continued to grow. In fall 2003, six GRCs served 214 undergraduates through three courses. In fall 2008, 50 GRCs worked with 1,644 undergraduates through 49 courses. The GRC courses are taught in all divisions of the College and at all levels.

Danielewicz first worked with GRC Risa Applegarth '09 in her honors seminar, "Reading and Writing Women's Lives." Since then, Danielewicz has collaborated with Applegarth several times and involved other GRCs about six times in her courses.

Applegarth, who recently graduated with a Ph.D. in English and is now an assistant professor at the University of North Carolina at Greensboro, said she enjoyed helping to cultivate students' sense of independent inquiry.

"Being a GRC gives you a chance to guide students as they're in the process of becoming researchers," she said. Applegarth also worked with GRCs in some of the classes she taught at UNC and developed

cross-disciplinary relationships with fellow graduate students.

Through a grant from the Spencer and Teagle Foundations, Danielewicz is the principal investigator on a project that will support the growth of writing, critical thinking and research in communication-intensive courses. GRCs will help with that process.

Danielewicz said her students continue to surprise and challenge her.

"I want to invite students into the life I lead here," she said. "They find ways to do things you can't imagine." •



Jane Danielewicz

NEW RESEARCH AND UNDERGRADUATE EDUCATION TERM PROFESSORS:

(All of the professorships are supported by The Margaret and Paul A. Johnston Fund. It was established in 1987 in the College of Arts and Sciences to honor retired faculty members. It is the largest endowed fund in the College.)

- Drew Coleman, geology: Jarsolav Folda Distinguished Term Professor in Research and Undergraduate Education
- Jane Danielewicz, English and comparative literature: Richard Grant Hiskey Distinguished Term Professor in Research and Undergraduate Education
- Donald M. Reid, history: J. Alan Feduccia Distinguished Term Professor in Research and Undergraduate Education
- elin o'Hara slavick, art: Glen H. Elder, Jr. Distinguished Term Professor in Research and Undergraduate Education



LEFT: John Meyer (on the left) studied doctor-patient relationships and volunteered at a hospital in Honduras.

RIGHT: Cameron Taylor proudly displays her UNC T-shirt in South Luangwa, Zambia.



Reice, who received a grant from the Carolina Entrepreneurial Initiative (CEI) to develop the course, said it's fun to help students discover their potential. The CEI encourages faculty and students in the liberal arts as well as business to be entrepreneurial in developing ideas.

"I think they're as surprised as anybody that they can do it," Reice said of his students, "and that's one of the great joys of this kind of teaching, to get students to progress well beyond what they thought they could do."

Foote enjoyed working with Reice so much that he signed up this past summer for his Burch Field Research Seminar in Brazil, an intensive seven-week experience focused on sustainable development and preserving biodiversity in the rainforest.

Bobbi Owen, senior associate dean for undergraduate education, said introducing students to how knowledge is created is something that first-year seminars and undergraduate research do very well. First-year seminars give students an early opportunity to study in small groups with leading faculty, and the Office for Undergraduate Research encourages students to participate in research and helps them find ways to fund their projects.

"We're not trying to train students for specific jobs that exist now, because as they enter the workforce, and later in their lives, those jobs won't be around anymore," Owen said. "Instead, we have to teach students how to think, how to discover and develop new knowledge. We need them to create new solutions, ideas and approaches. By engaging them in that process early on, we set them on the right path for the future."

'Research is cool'

Carolina undergraduates don't just dabble in research: They use the acquired skills and knowledge to learn for the rest of their lives.

Gergel was among the first class of 16 students to earn the Carolina Research Scholar distinction. The seeds of the new program began with the administration of former student body president Eve Carson. Research scholars must complete the introductory Modes of Inquiry class and two research-intensive courses, and present their research at a symposium, professional meeting or conference.

Gergel was one of the students involved in planning the new program.

"In a similar fashion to the Public Service Scholars program, I wanted to create a culture that says 'research is cool.' And I wanted it to be something not just associated with students in a lab ... I wanted it to [encourage] students in the performing arts and studio art and humanities and philosophy."

John Meyer '09 also graduated as a Carolina Research Scholar. He's taking a year off before applying to medical school. His undergraduate research took him to Honduras, where he pursued a different approach to medical research. He used literature to examine the issue of trust and how doctors take on different personas in the doctor-patient relationship. He observed about 700 doctor-patient interactions in North Carolina and Honduras.

Meyer, a comparative literature major with minors in Spanish and chemistry, said he began to make connections in all of his classes at Carolina through pursuing research.

"It teaches you a way to approach a problem, and all of your classes become more tied together," he said. "It gave me a focal point, and it's an opportunity to put your skills and knowledge to use. ... It lets people know what you're passionate about."

Biology professor Pat Pukkila, the university's ambassador

for undergraduate research, has been directing the Office for Undergraduate Research since its inception. In 2007-2008, College faculty reported that they had mentored 1,310 undergraduate projects. And 56 percent of graduating seniors received course credit for at least one research-intensive course in which over half of the class time was devoted to conducting original research and presenting their research conclusions.

Many students receive private funding to help pay for their research endeavors. They also can sign up for a peer adviser to help them with writing research grant proposals.

"When I first started in this job, it seemed overwhelming, but students have really embraced the idea of undergraduate research — and that is thrilling," Pukkila said. "I think what I'm most proud of is when I walk across campus now I can really imagine every student being influenced by some program in the Office for Undergraduate Research."

Adventures of a lifetime in Malawi and Jordan

Undergraduate research took Cameron Taylor '10 and Clayton Thomas '11 to far-flung corners of the world — to Lilongwe, Malawi, and Amman, Jordan.

The summer after her sophomore year, Taylor got funding from the Institute for Global Health and Infectious Diseases to accompany geography professor Michael Emch to Malawi. She helped develop a geographic information systems (GIS) database so researchers can better track study participants in the UNC Project-Malawi

continued

program. She also helped train community health workers on how to take global positioning system (GPS) coordinates. This past summer she returned to Malawi with the help of a SURF grant to continue a geographic analysis of HIV and malaria. She also began work on her senior honors thesis which will examine the ecological effects of the malaria vaccine.

After finishing her undergraduate geography degree, Taylor plans to pursue a graduate degree in public health.

Like many Carolina students, Taylor wrote about both summer experiences on her Web log (blog).

“To sum up my summer, it has been amazing. Malawi will always hold a warm spot in my heart and I definitely want to come back again,” she wrote in the summer of 2008.

As a sophomore, Thomas presented his research on Christianity as the lynchpin in Turkey’s new tourism strategy at a major international conference in Amman, Jordan. The summer after his freshman year, he accompanied history professor Sarah Shields on a Burch seminar in Turkey, where he began his research. Shields later encouraged Thomas to submit his paper for the conference.

The Office for Undergraduate Research, the Honors Program and the history department all contributed funds to allow Thomas to travel to Jordan to participate “in one of the most intellectually, academically and personally fulfilling experiences of my entire life.”

Thomas discussed his paper with a representative of the Jordanian Ministry of Tourism and met scholars from Turkey, Canada, Norway and Egypt.

“It was my first time traveling alone and was an incredible opportunity to observe daily life in one of the most important, and perhaps least understood, parts of the world.”

Exploring national policy, Facebook, music and physics

The May 2009 issue of *U.S. News & World Report* lauded UNC’s “imaginative” first-year seminars in a story on how college campuses are changing.

UNC takes a different approach to first-year seminars from some universities,



LEFT: Former State Department Spokesman Hodding Carter teaches a first-year seminar on national policy. **RIGHT:** Physicist Laurie McNeil has taught a first-year seminar for 10 years.

which focus more on orienting students to college, said Steve Reznick, associate dean for first-year seminars and academic experiences.

“Our program is designed to allow incoming students to start their first year with an exciting, intellectual experience,” he said, “to pursue an advanced topic in a way in which the student is participating in the gathering of knowledge.”

There are enough seats for about 63 percent of UNC’s first-year students to take a first-year seminar. From 60 to 80 seminars are offered each semester, with an average class size of fewer than 20 students.

In Kathy Williams’ Documentary Theatre seminar, students come up with a topic, then interview people, write, stage and perform their own skit. Williams has an extensive background in documentary theater. She is the performance director for Hidden Voices, a nonprofit theater dedicated to bringing life-changing stories to the public.

On an April morning last spring, students in Williams’ class, coffee cups in hand, rehearsed their lines before a final performance of “Facebook Friendly: Status Online.” Students spent a semester examining how Facebook and technology are affecting interpersonal relationships and their generation’s ability to communicate.

“It’s almost sickening how much people get on Facebook and e-mail and stuff like that,” one of the characters says in a monologue that closes the show. “I think it’s made people extremely lazy, and I think it’s made us lose a lot of our social skills.”

Kelsey Lee ’12 said she made friends in Williams’ class that she continues to connect

with at Carolina — and yes, some of those classmates are now her friends on Facebook.

“It was completely different from any other class I’ve taken because you’re forced to interact with other students around you,” she said. “It made the world seem a little bit smaller, because we were able to connect as complete strangers and form a bond.”

“They find ways to explore stories and share differences in an environment that because it’s creative allows them to explore difficult subjects,” added Williams, who is a member of PlayMakers Repertory Company. “First-year seminars do one of the things that theater does so well — bringing people together to embrace common ground despite how different they are.”

In Hodding Carter’s National Policy seminar, students examine the people responsible for setting the national agenda. Carter served as President Jimmy Carter’s State Department spokesman during the Iran hostage crisis and has had a long career in broadcast journalism. The only prerequisites for Carter’s first-year seminar? “Intellectual rigor and an open mind.”

Teaching a first-year seminar is rewarding for faculty because new students are eager and ready to learn, said Carter, the University Professor of Leadership and Public Policy. After teaching at other colleges, Carter called the UNC seminar experience “the most satisfactory single form of instruction I’ve ever done.”

“They are remarkably open and ready to participate for the most part because they haven’t learned to be ‘cool,’” said Carter, who at the end of the course places students in groups representing political parties where they give a presentation on setting

Doing research, making a difference in Peru

By Kim Weaver Spurr '88

When UNC anthropologist Brian Billman tells people that he leads a summer field school for undergraduate students in Peru, he sometimes gets the response, "Are you crazy?"

Billman founded the field school in 1998. Since then, about 170 undergraduates have become summer archaeologists, assisted by graduate students. The undergrads receive six hours of academic credit.

Students spend about a month with Billman in Peru, working five days a week excavating an ancient village (400 BC-700 AD) in the Moche River Valley, about 45 minutes from the coast. On the weekends, Billman conducts tours of local museums and archaeological sites.

"It's definitely not for everybody," Billman said, laughing. "It's very dirty work, hard and tedious. But they also develop a broader understanding of the world, an appreciation for the culture and history of Peru."

For many students, Billman said it's an eye-opening experience.

"Some have never been out of the country; some have never been out of North Carolina before," he said. "It's really exciting being with the students and going through that experience with them. It's an immersion — in the country, in archaeology — and that's

the sort of experience that changes people because they can't just put the book back on the shelf; [the learning] is 24-7."

Chris Jochem '07, a geography major, participated in Billman's field school in the summer of 2005. He was intrigued by a prehistoric site at the top of Cerro Ramon (elevation: 1,831 meters) that had not been mapped before. Jochem returned the following summer with the help of a Summer Undergraduate Research Fellowship (SURF) to conduct an archaeological survey and assessment of the site.

Jochem said he is still using the skills learned in Peru in his current job as a research associate at the Oak Ridge National Laboratory west of Knoxville, Tenn.

"There's only so much you can learn from lectures, textbooks and labs. ... The next level is to try and apply some of those things," he said. "That's where, when faced with the challenges of doing something new, I found I learned the most."

Kevin Kohler '11 participated in the Peru field school the summer after his freshman year. For 10 years, Billman and his Peruvian colleague Jesús Briceño have had a unique partnership with the community of Ciudad de Dios in the Moche Valley. The researchers



Brian Billman

"hired" the community to guard the archaeological site while they were away during the year, to protect it from looters. In exchange, the archaeologists promised to take on a development project of the community's choosing.

With the help of a Launching the Venture class through Kenan-

Flagler Business School and a Kauffman Faculty Fellowship from UNC, Billman created a nonprofit, MOCHE, that supports the development projects. So far, MOCHE has built a road, a water system, a schoolhouse and a soccer field, among other projects. Their next goal? A medical clinic.

Kohler became so passionate about MOCHE that he and four other students formed an official UNC club, MOCHE-Carolina, to raise money for the nonprofit. In their first semester, they raised \$600.

This past summer, Kohler returned to Peru with Billman to help with the development of a service-learning course tied to MOCHE.

Billman calls himself a "reluctant community activist and philanthropist."

"But years later, it's the most gratifying and rewarding experience a person can have. And when you add in the element of these young students, it's just amazing." •

the national agenda. "I want them to take away an understanding that we're talking about an evolving process. ... I want them to know that critical thinking is the most important thing you bring to public life."

At the beginning of the class, Ian Lee '12 said Carter invited each of the students to set up a time to go to lunch with him. Lee took him up on it.

"We talked for about an hour and half outside the classroom about what was going on in the media," said Lee.

Physics professor Laurie McNeil and Brent Wissick, the Zachary Taylor Smith Distinguished Term Professor of music, have taught their course on the Interplay

of Music and Physics every year since the inception of first-year seminars. She served on the Chancellor's Task Force on Intellectual Climate that recommended the program's creation.

Wissick has always been interested in how musical instruments make sound, and McNeil has studied violin and sings with the Choral Society of Durham. Students take a field trip to University Methodist Church, where they see the inner-workings of an organ. They also build string and wind instruments out of "found objects," like broomsticks or cookie tins and perform an original concert composition.

McNeil said leading a first-year seminar

has taught her how to be a better teacher.

"Working on the course for over 10 years has been a real pleasure," said McNeil, a leader in mentoring women in science. "There are certain things that it doesn't matter how many times or ways I explain it, the students don't understand it until they do it with their own hands."

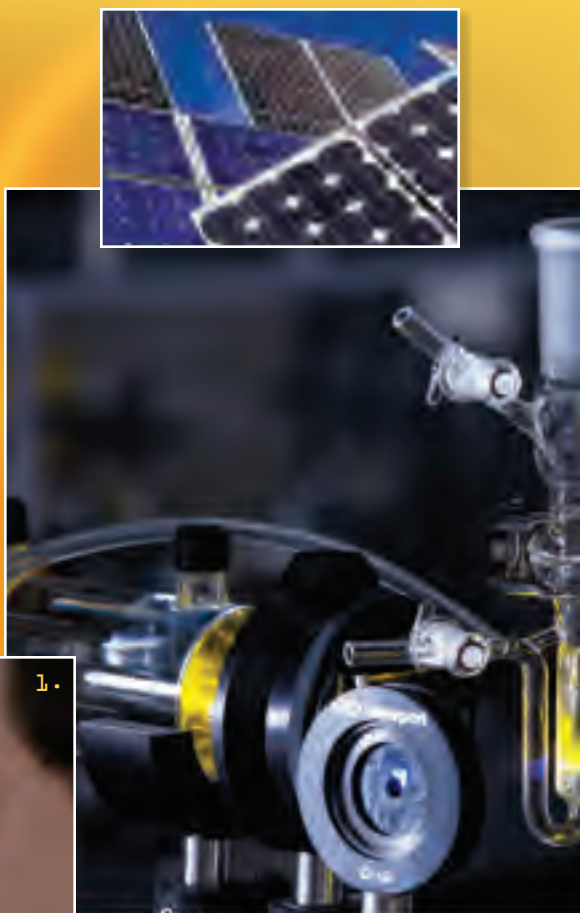
"Teaching by telling doesn't always work. They have to actually experience it." •

ONLINE EXTRAS: Read Cameron Taylor's Malawi blog, learn more about Brian Billman's archaeological field school, see a world map of where SURF students have conducted research at college.unc.edu.

BY DELENE BEELAND

FROM PHOTONS TO FUELS

\$17.5 million federal grant funds
new UNC solar fuels center



Humans are scrambling to catch up to plants' indigenous chemical savvy.

There is a lot to covet in a green, leafy plant. Especially if you are scouting for sustainable solutions to the world's worsening fossil fuel crisis. For about three billion years, plants and their photosynthetic forbearers have successfully captured sunlight and converted it to

energy for their own private use.

We humans are scrambling to catch up to plants' indigenous chemical savvy. We too desire to



Steve Exum



Dan Sears



3.

Dan Sears

1 • Kyle Brennaman (Ph.D. '04), a postdoctoral fellow in chemist Thomas Meyer's lab, sets up a photoelectrochemical cell for solar fuels production. 2 • Scientists are using an experimental water-splitting device to try to artificially replicate photosynthesis in the lab. 3 • Shaun Hampton '10 does solar research in chemist John Papanikolas' lab. 4 • Sarah Stoneking '10 holds a fabricated solar cell device. Such research is part of solar energy work that helped attract federal grant funding to UNC.

make renewable energy from photons of light. And we want this new energy to jive with our existing infrastructures for distributing electric power, and to lessen or mitigate greenhouse gas emissions.

This challenge entices scientists in an emerging field within chemistry, physics, and materials science known as solar fuels. In theory, solar fuels will use the portion of the sun's electromagnetic radiation that falls to earth as light and even the near infrared, which our eyes can't see, to drive chemical reactions which cause fuels like methane or hydrogen to form. These fuels can be burned immediately for energy or stored, taking advantage of our existing energy infrastructure.

In North Carolina, the path to solar fuels is being blazed by UNC distinguished chemist Thomas Meyer and his collaborators, who recently landed a \$17.5 million grant from the U.S. Department of Energy, with economic "stimulus" funding through the American Recovery and Reinvestment Act, to fund an Energy Frontier Research Center (EFRC). Other lead investigators on the project are Carolina chemists John Papanikolas (deputy director of the center), Edward Samulski and Wenbin Lin and University of Florida chemist Kirk Schanze.

The UNC initiative is one of 46 EFRCs funded nationwide, but it is the only one devoted to solar fuels and the only one located in North Carolina. It will link more than 20 faculty in UNC's

departments of chemistry, and physics and astronomy, and scientific collaborators at N.C. State, N.C. Central and Duke universities, plus the University of Florida. The Center will support a mix of about 30 postdoctoral fellows and graduate students.

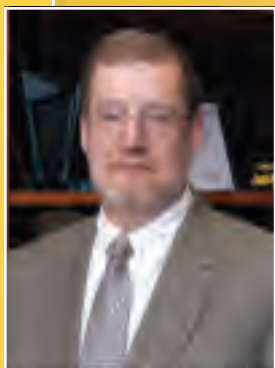
The main thrusts of the UNC EFRC will be to investigate the use of light to split water molecules into hydrogen and oxygen, and to use light and water to reduce carbon dioxide to methane and/or other hydrocarbon fuels. In a second project, EFRC scientists will delve into the sister field of solar-to-electrical energy conversion by photovoltaics. There they will seek to create next-generation materials for photovoltaic cells that use inexpensive plastics and chemical materials called polymers rather than the silicon solar cells that are seen so often powering isolated street signs, for example. Success in this area could lead to "solar shingles" or even "solar paint" that could be easily applied to roofs, providing solar power to everyone.

Meyer, the Arey Distinguished Professor of Chemistry, says that the easiest of these — chemically speaking — is water splitting, which is one of the targets of artificial photosynthesis. Visualize a water molecule, with a central oxygen atom and two hydrogen atoms. To split them apart, you have to add enough energy to transfer electrons from the oxygen to the hydrogens. This can be done by applying an electric field in a process called electrolysis, "but to do this with sunlight is more subtle," Meyer said. "You have to use a catalyst and activate it, using just the power of the sun to drive the reaction."

He says his research team is designing "molecular assemblies" that will absorb light, become activated by transferring electrons and then catalyze water oxidation.

Meyer has the background to lead the EFRC research teams. In 1974, in a collaboration with ex-UNC faculty member David G. Whitten, Meyer's lab was the first to show that molecules could absorb light and undergo electron transfer, the first two key steps in water splitting. In 1982, his laboratory was the first to describe a molecular catalyst for water oxidation.

continued



Renewable Energy Czar

Larry Shirley runs the state energy office

BY DELENE BEELAND

If UNC College alumnus Larry Shirley had his way, buildings in North Carolina would be weatherized, landfills would be tapped for their gasses, wind farms would flourish, and biodiesel would flow at filling stations.

ABOVE: Larry Shirley

Shirley isn't a dreamer. He has directed the N.C. State Energy Office since December of 2000, where he oversees programs focused on renewable energy, alternative fuels and energy efficiencies. The Energy Office is in line to receive more than \$100 million in federal stimulus funds to be doled out during the next three years.

"We're going to see a lot of innovation from this," Shirley said. "We'll see fire stations with solar hot water systems, and we're going to see town halls getting more energy efficient. This is a transforming moment in North Carolina."

Steps are being taken to increase wind, solar and biofuel energy sources in North Carolina, Shirley said. Currently those renewable fuels comprise less than 5 percent of the state's energy mix. That will move to 12.5 percent by 2021 under the Renewable Energy Portfolio Standard, and he predicts it will continue to increase.

"Wind energy is, I think, the exciting frontier for the state," he said. While Shirley acknowledges that environmental site considerations pose challenges, he said the state is trying to develop the permitting process to attract wind energy developers and address environmental concerns.

Shirley gives about 100 talks a year, and he works with local governments to cut their energy consumption. He also helps them understand the effects of climate change.

Shirley serves on the board of the Biofuels Center of North Carolina, drives a biodiesel-fueled Volkswagen Jetta, and his family's home uses passive solar energy and thermal mass to cut fuel and energy use. He says that his education at UNC prepared him for a career in environmental politics, and that his coursework impressed upon him that energy issues lay at the root of nearly all environmental challenges.

Larry E. Shirley received his B.A. degree in political science from Carolina. •

ONLINE EXTRAS: More on the Biofuels Center of N.C. and the history of the State Energy Office at college.unc.edu.

He also envisions developing a process that would use light to drive a reaction between water and carbon dioxide gas (CO_2), concentrated from smokestacks, to give methane (CH_4) or other hydrocarbon fuels. This has special appeal because in addition to creating a new form of renewable energy, it finds a use for industrial carbon emissions that are contributing to global warming.

"What we envision is setting up these photoreactions using solar converters on site at a power utility or a factory," Meyer said. "The waste carbon dioxide coming out of a smokestack is concentrated and piped into these converters, where water and CO_2 are converted into methane or other hydrocarbons."

Methane is the main component of natural gas, and it gives off waste carbon dioxide when burned for energy. In this scenario, methane from the solar reactor would be piped right back into the power plant, and burned for energy with the waste CO_2 captured and returned to the solar converter to make more methane.

A third avenue that Meyer's team is exploring is that of designing novel molecular assemblies to replace silicon's role in traditional photovoltaic cells. Highly purified, semiconductor-silicon is used to absorb sunlight that excites internal electrons, which are siphoned off to create electricity. Physical properties of silicon limit its efficiency to a little more than 20 percent. It is useful but expensive to produce, and other semiconductor materials are beginning to take its place.



Dan Sears

ABOVE: Thomas Meyer

The novel materials that Meyer and his team are brainstorming would be much cheaper and easier to make and fabricate.

Meyer's team is entering talks with the Research Triangle Institute (RTI) about translating research results in the EFR C into marketplace products. He also is casting his eye farther into the future, toward creating an even larger partnership among researchers at UNC, Duke, RTI and N.C. State through the existing Research Triangle Energy Consortium (RTEC).

"We are now in discussion as a group about competing for a new Department of Energy program called Energy Innovation Hubs which will be five times bigger than existing EFR Cs," Meyer said. "If that happens, this would become a world center for research in solar fuels." •

ONLINE EXTRAS: For a complete list of scientists at UNC involved in the EFR C, visit college.unc.edu.

The Power of Twenty Suns: MegaWatt Solar BY DELENE BEELAND

MegaWatt Solar is a small start-up energy company in Hillsborough, N.C., backed by \$17 million from Norwegian venture capitalists and mentally powered by three researchers in UNC's College of Arts and Sciences. Tucked away in a brick textile-mill-turned-office-park, the company is poised to bring a new concentrated photovoltaic system to market that could provide the cheapest large-scale renewable source of electricity available anywhere.

But they didn't design it for your home. They designed it for your utility company, to offset peak energy demand, which tends to coincide with the sunniest portions of the solar day.

The term MegaWatt describes their goal of producing one megawatt of electricity from over a thousand solar "trees" spread across about 10 acres. The solar trees rotate on a dual axis mount that tracks the sun across the sky vault. One megawatt of electricity — one million watts — is enough to power about 800 homes.

MegaWatt Solar was founded by astrophysicist Chris Clemens, theoretical physicist Charles Evans, computer scientist Russ Taylor and a private sector power-grid systems engineer, Dan Gregory. They built their alpha version in spring 2006 in Evans' driveway from what he describes as "an aluminum erector set for adults," with parts bought off E-Bay, cheap advertising signboard and a highly reflective material scavenged from the interior of a Solotube skylight. The best part? It worked.

"Boy, it was bright," Evans said. "Everyone ran to get their sunglasses."

They measured its electrical output and knew they were on to something red hot. The alpha reflector had a concentrating factor of 24:1. However, the team reduced this to 20:1 in their final design, to balance limitations from excessive heat buildup with low-cost solutions. Still, the power of 20 suns is impressive.

Since that weekend science project, the researchers have ruthlessly honed their design in an iterative process. They are on their fourth version, which uses four trough-shaped mirrors to produce about 0.75 kilowatts, and Clemens thinks they are nearing the finish line. He believes they will have a marketable product within a year that produces 1 kilowatt. A power utility would need to install about 1,000 of the concentrated solar trees, which Taylor estimates would take about 10 acres, to produce one megawatt. From the get-go, the trio wanted the design to be as low-cost as possible.

They have one pilot project in Caswell County, where Piedmont Electric Membership Corporation has installed sixteen 12-mirror solar trees. The team is retro-fitting the units to address wind demands, but they expect the new solar plant to be online by December, when they will begin field-testing

them. A second pilot project is planned in Florida. They are also field-testing six units that are located a stone's throw from their Hillsborough office.

MegaWatt's solar trees are modular in design, to allow for periodic upgrades in a fast-paced technological world. Clemens, whose background is in astronomical instrumentation, designed the rough concept for the unit, and Evans focused on perfecting the light collecting and concentrating system.

"One of our mantras was that because the mirrors are the component that would cover a lot of ground, they had to pretty much be cheaper than dirt," Evans said.

They settled on an inexpensive exterior signboard material called Dibond, topped with a 3M film. Clemens jokes that it is the "cheapest mirror known to man," but its 94 percent reflectivity and extremely light-weight aluminum frame are no joke.

Taylor and his team worked on the computing that drives the dual-axis mechanical and optical tracking system. His team designed software that learns and anticipates where the reflectors need to be, and directs them there. This software allows the units to be installed anywhere on earth, he said, and within three days the unit will learn all it needs to know to track the sun and keep the reflectors in the right place.

Clemens and Evans extensively researched other concentrated photovoltaic projects and picked the best elements from them. A central key to their process was using existing technologies and materials, which kept costs down.

MegaWatt Solar does not plan to mass produce the solar trees. Rather, they plan to work directly with interested utilities, license the design to large engineering firms, and advise local contractors on the construction and parts-purchasing.

They're not the first to propose concentrating light to make more efficient use of photovoltaic cells. But they may be the first to do it cheaply, reliably and at a utility scale. •

ONLINE EXTRAS: *More at college.unc.edu.*



Steve Exum

ABOVE: UNC scientists Chris Clemens (foreground) and Charles Evans are among the founders of start-up energy company MegaWatt Solar.

Their reading list included *Mankiller: A Chief and Her People*.

But it was the face-to-face discussion with former Cherokee Nation Chief Wilma Mankiller that brought to life the biography of the human rights advocate and Presidential Medal of Freedom winner for a dozen UNC undergraduates.

The group was studying “abroad” this summer in the sovereign Cherokee Nation capital of Tahlequah, Okla., as part of a new course in UNC’s American studies department.

The three-week course’s experiential and interdisciplinary curricula, in collaboration with Northeastern State University (NSU), provided studies in Cherokee

“My understanding of how history functions, what history means, was subtly shaped in ways that would have been impossible without this course,” said Harold Walker Elliott (history/German ’11). “I plan to specialize in Southern history in grad school. Indian history in the South is an [area] too often ignored.”

• **COMING TOGETHER FOR ALL**

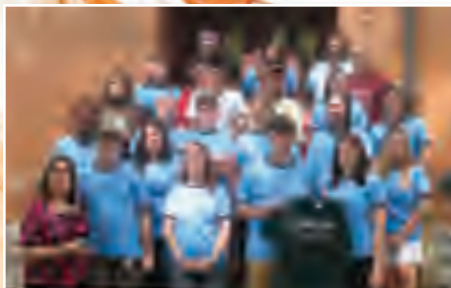
“From an American Indian’s perspective, Oklahoma is the center of the Cherokee universe, home to 38 federally recognized tribes,” said Tol A. Foster, who taught the course component on literature and film.

Foster, a Mvskoke (Creek) citizen, UNC assistant professor of American studies

‘ABROAD’ IN THE CHEROKEE NATION

UNC students experience new summer course in Tahlequah, Okla.

BY JB SHELTON • PHOTOS BY ERIC RICHARDSON



LEFT TO RIGHT: (Front row, far left): NSU’s Phyllis Fife and UNC’s Tol Foster pose with students in the Cherokee Nation summer course in Tahlequah, Okla. • Students took classes in Cherokee language and literature, law and history, animation, art and film. • They visited a Cherokee Language Immersion School.

language and literature, law and history, animation, art and film.

Students attended classes on the Northeastern campus and enjoyed enlightening field trips to the Cherokee Heritage Museum, a Cherokee Baptist Church meeting, a Keetowah Tribe gathering, a Cherokee Language Immersion School, Fort Gibson and a tribal casino.

They took part in traditions, from the religious phenomenon of stomp dancing all-nighters to highly competitive women-versus-men sports events. And they recorded their experiences, insights and life-changing memories on daily Web logs (blogs.)

and the resident faculty adviser, co-created “Tribal Studies: The Cherokee Nation” with Theda Perdue, UNC Atlanta Distinguished Professor of Southern Culture. Perdue has been a scholar of Cherokee history for 35 years.

“The Cherokee Nation is governed by the principle of *gadugi*: Coming together to work for the good of all,” Perdue explained. “*Gadugi* is the appropriate word for the spirit and sense of responsibility shared by the Cherokee and the Oklahomans, and by the faculty and students of UNC and Northeastern State University.”

“The course provided intimate learn-

ing by our students living in an American Indian community and interacting with Native people. By bringing the knowledge gained from their experiences back to UNC, they will enrich the intellectual climate on campus.”

Renowned scholar Julia Coates of the University of California Davis taught the law and history course.

“Rather than viewing the Trail of Tears with misty-eyed emotionalism, [Coates] demonstrated a strong commitment to factual accuracy and presented us with a meticulously researched, largely non-traditional interpretation,” Elliott said.

Northeastern has the highest enrollment of American Indian undergraduates in the world; several joined their UNC peers to share their life experiences and insights into the contemporary Cherokee nation.

“It cleared up misconceptions about

in homage to Sequoyah, the tribal leader who in 1821 created the system for writing and reading the Cherokee language.

“Kindergarteners and first-graders know they hold their parents’ hopes of keeping their language alive,” said Rebecca “Becky” Duggan (history ’10), whose minors are American Indian studies and music.

• THE ISSUES OF HEALTH CARE

Students were impressed with the state-of-the-art Three Rivers Health Center, embellished with the Cherokee seven-pointed star flag, symbolizing the seven original clans of the Cherokee people.

“The Cherokee Nation has invested a huge amount of money in health care,” Foster explained. “Their story is about making life better for their citizens.”

“The building itself is a very powerful symbol for what the Cherokee Nation is accomplishing.”

There is a growing emphasis at UNC on American Indian scholarship. In fall 2009 and spring 2010, students will have an opportunity for the first time to take a Cherokee language course on the UNC campus. And students can choose to minor in American Indian studies or select it as a concentration within the American studies major.

• SPREADING THE WORD

Duggan, whose academic plans include a master’s in public history, already feels the program’s effects on her career decisions.

“I’ve always wanted to work in a museum, thinking my path would take me to the Smithsonian Institution. But my experiences through the Cherokee Nation course have evolved into thoughts of directing a tribal museum.”

Duggan’s passion for a traditional Cherokee sport blossomed in Tahlequah: She is determined to start a co-ed stickball team at UNC. With a compassionate competitive mindset, she promises to warn prospective male players that traditional Cherokee rules give great advantage to female players.

Caroline Robbins Harper (psychology ’10) said that the students’ meeting with Principal Chief Chad Smith was also eye-opening.

“His insights into contemporary Cherokee life were clearly based on respect for history,” Harper said. “His revelations about the Cherokee people’s determination to create their future as a sovereign nation with global outreach were innovative and inspiring.”

The course received a subsidy from the Burch Seminar Program at UNC, which is supported by a gift from alumnus Lucius E. Burch III. Perdue, Foster and Friederike Seeger, director of Burch programs and honors study abroad, are hoping to be able to expand the program next year.

Duggan said she came home from the Cherokee summer experience “knowing we have great opportunities to make a difference, not only in our native North Carolina communities, but also in native communities around the United States.” •

ONLINE EXTRAS: *More on the Cherokee Nation summer experience, including a link to students’ blogs, at college.unc.edu.*



LEFT TO RIGHT: Jerry Dobbs, historic sites manager, discusses the language Sequoyah developed. • Students visit the Tar Creek Superfund Site in Quapaw Indian Country in Picher, Okla.

what it means to be Cherokee, emotionally and intellectually, by talking with my new friends while wading through a muddy creek, hunting for crawfish,” noted Elliott.

• REVITALIZING LANGUAGE

When white water rafting on a rare free afternoon, students were joined by an elder Cherokee language speaker who jumped at the chance to join the adventure, to engage them in practicing their Cherokee language skills.

The Cherokee Nation provides language immersion studies, starting with pre-schoolers. Revitalizing the language is

coordinated most of the planning for the program in Tahlequah.

One of the Cherokee language lessons was held at the site of Sequoyah’s cabin.

“Oklahoma Cherokees have a natural connection with North Carolina, and it is good that UNC and NSU have now collaborated to bridge tribal studies,” Fife said.

In 1838, many Cherokee, forced off their lands in N.C., marched to Indian territory, now Oklahoma, along what became known as the Trail of Tears. In the mountains of North Carolina, the Eastern Band of Cherokee Indians preserve, live and share their history with adventurous visitors today.

• NORTHEASTERN PARTNERSHIP

Phyllis Fife, a Mvskoke (Creek) citizen and director of the Center for Tribal Studies at Northeastern, coordinated 14 hours of formal language instruction, planned cultural experiences and cooked traditional Cherokee foods for the students. Her office

Lost and Found

Emmanuel Chan is first 'Lost Boy of Sudan' to graduate from UNC

By Pamela Babcock

The first student to attend UNC in 1795 was Hinton James of Wilmington, who, according to campus lore, walked 170 miles from his home to Chapel Hill.

Emmanuel Chan, the first of the "Lost Boys of Sudan" to graduate from the University, has a leg up on Hinton. Chan (biology '09) walked more than 1,000 miles to get there.

Chan's long journey as a child fleeing unrest in his native Sudan took him to Ethiopia and then Kenya. After years in a refugee camp, he and hundreds of other Sudanese youth, many of them orphaned, were given a safe haven in the U.S. Chan first settled in Charlotte and eventually came to Chapel Hill to enroll at UNC. The "Lost Boy" was "found" by Kelly Hogan, a UNC biology lecturer, who took Chan into her family's life.

Hogan met Chan, 26, in 2008 when he came to her office to meet with a colleague. Hogan had watched the "Lost Boys" documentary, recognized Chan's tribal scars as Sudanese markings and asked where he was from.

"You are looking at a 'Lost Boy,'" Chan said as he flashed his infectious smile.

Hogan told her husband, Brian Hogan, a research assistant professor in UNC's chemistry department: "I found a 'Lost Boy,' and I think he needs our help."

The Hogans invited Chan over for dinner and soon they became friends. Chan enrolled in their genetics class, and the family spent countless evenings studying, eating, talking and learning from each other. The Hogans gave Chan money to catch a flight, a place to stay when his dorm closed over breaks and a graduation party last summer. Chan babysat the couple's two young children.

"My heart turned blue before I even got here," Chan said of his Tar Heel pride. "This is the greatest university on the face of the planet."



Chan fled the village of Thiet in south central Sudan in 1989 after civil war broke out; he was just 7 years old.

"There was an attack at midnight by the Northern army, and I had to run away without knowing where to go or what had happened," he recalled. He hid in the woods alone for 13 days, crying, with no food or water.

Chan eventually joined a group of boys, "others who saw their parents gunned down." Crossing the desert on a three-month trek to Ethiopia, they faced enemy fire behind them and animals "trying to survive on us," Chan said.

Over a period of years, an estimated 27,000 Sudanese youth wandered more than 1,000 miles to a refugee camp in Ethiopia in search of safety.

When the Ethiopian government fell in 1989, thousands of refugees fled to Kenya, where they stayed until a U.S. resettlement program began in 2001. Chan relocated to Charlotte, when he was 18. He was completely unaccustomed to cars, electricity and modern society.

Chan learned English and got an associate's degree at Central Piedmont Community College while working two warehouse jobs. He sent money to family



ABOVE: Emmanuel Chan (left) and Jake Hogan share a laugh over pizza. LEFT: (Clockwise, from left): Brian and Kelly Hogan, Emmanuel Chan, Jake Hogan and Arkangelo Chan.

after learning that his mother was living in Uganda. She had no idea her son had survived.

While Chan typically shies from media attention, he and his wife Veronica, a "Lost Girl," were on "The Oprah Show" in 2007 discussing how they met at a refugee camp in Kenya and later ran into each other at a church in Canada while Chan was visiting other "Lost Boys." Veronica and their two children live in Canada; Chan hopes to move them to Chapel Hill. His half-brother, Arkangelo, is a junior biology major at Carolina.

The Hogans pay \$105 a month to send Chan's three middle-school age brothers to school in Uganda and recently teamed up with Sustain Foundation, a Chapel Hill nonprofit, to raise awareness and funds for the next generation of "Lost Boys."

"Our lives are better for knowing this man and his brother and family," Brian Hogan said.

Chan works as a research technician at the UNC School of Medicine's Institute of Pharmacogenetics and Individualized Therapy and is considering a future career in health care.

"I always knew there were some good things ahead of me," Chan said. "I have so much hope in life." •

ONLINE EXTRAS: For more on Emmanuel Chan and "The Lost Boys," visit college.unc.edu.

Prof's TV sitcom a hit with students

By Dee Reid

How's this for a Hollywood pitch? An award-winning TV writer-turned-UNC-faculty member dreams up a sitcom about urban middle-school students and their family. It's got everything for dramatic tension and laughs: nerdy brother with too-hip friends, clueless sis who thinks school isn't cool, mellow dad who's a coach, and, get this, Army major mom just back from the front. She arrives in time to apply discipline to the slacker household. Subliminal message: straighten up and stay in school.

Imagine "Family Matters" and "Good Times" meet "Happy Days." If we could just get Will Smith and Queen Latifah for the parents, it would be a ratings sweep.

Stephen Neigher, who teaches in UNC's communication studies department, created "The Middle Ages" and produced a pilot episode with the help of some volunteer students from the College's writing for the screen and stage program. They cast it with local inner city pre-teens who used their own real-life experiences to enhance the script and inform their acting.

The pilot was a big hit with the UNC and Durham public school students involved in creating, directing, casting, filming and acting in it. It has been airing on the People's Channel (which provided the cameras) in Durham. And there's a DVD that can be used for more

creative educational after-school projects.

The first episode was directed by Bristel Bowen '09 and produced by Jenny Hinkle '09, Chelsea Ginyard '09 and Nicole Bell '10.

Hinkle is also "dean of students" at Student U, a nonprofit started by Duke University Robertson Scholar Dan Kimberg that

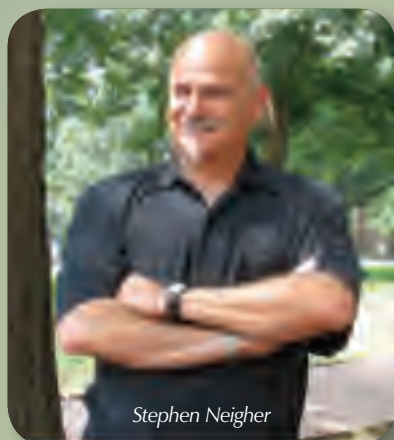
provides after-hours enrichment programs for public school youth. Hinkle lined up Durham middle-school students to co-star in the pilot; Kimberg allowed them to rehearse and stage the program at Durham Academy.

"The kids would talk about their lives and share with us ideas for the script, language, everything," said Neigher. He enjoys showing UNC students how to write television dramas and comedies while engaging the community.

The UNC students aired the show in front of a live audience at Durham Academy in April, including teachers, parents, students and the program's stars: Grace Patterson,



ABOVE: Dan Kimberg (right) discusses the script for "The Middle Ages" with Durham middle-school student actor Naszir Forte-Ferguson. LEFT: Durham middle-school student Diamond McQueen was one of the sitcom stars.



Stephen Neigher

Camayia Daniels, Naszir Forte-Ferguson, Jared Lloyd-Robinson, Micah Riley, Robert Traynham and Diamond McQueen. Neigher is creating a "Middle Ages" Web site through which after-school programs around North Carolina and the nation will be able to write and produce their own episodes of the series.

"It's a way for college students to share what they've learned with younger students in the wider community," Neigher said. "The middle-school students can re-act the program and adapt the script to reflect their own lives, maybe create some new scenarios. In the process they learn editing, re-writing, filming techniques. Writing television comedy is really hard, but this gives them a program and a process to build on." •

Neigher has written for "Barney Miller," "Judging Amy," "Due South," "The Jeffersons," "Sweet Surrender," "Brothers" and many other TV programs and movies.

Anoop Scoop

Anoop Desai '08 is enjoying life after 'American Idol'

By Kim Weaver Spurr '88

If top-six "American Idol" finalist Anoop Desai '08 could post one "tweet" on Twitter's social networking site that would summarize his experience on reality television, what would it be?

"Life-changing," he said in a summer phone interview from Los Angeles where he was rehearsing for "American Idol's" 50-city tour. (At press time, Desai had more than 46,000 followers on his Twitter fan page, @AnoopDoggDesai.)

If there's any doubt that Desai, an American studies and political science alumnus, bleeds Carolina

blue, let the record show this: He still wears his Ehringhaus dorm T-shirt from freshman year, and he is the proud owner of a poster of Franklin Street after the Tar Heels' NCAA championship win, signed by Roy Williams.

"When I was on the show, I told them 'you can put me in whatever — as long as it's Carolina blue, I won't have a problem with it,'" said Desai, the former president of Carolina's male a cappella singing group, the Clef Hangers.

The Haywood Hinkle Carolina Scholarship cemented Desai's decision to study at UNC. The scholarship was established in 1993 and is named for the 1938 alumnus who owned Hinkle Grocery in Lexington, N.C.

"I had applied to a lot of other places, but when I got that big envelope in the mail, it's something I couldn't pass up," said Desai, a native of Chapel Hill. "And looking back, it's the best decision I ever made in my life."

Desai said rehearsing for the tour, which ends Sept. 15, is a "cool experience, very different from the show."

"It's a lot less stressful. ... Having to go

"I am who I am because I went to Carolina, and I'm never going to forget that."

through camera blocking is a lot different than putting on a stage show," said Desai, who has a three-song set on the tour. "The thing we're all worried about right now is keeping our voices healthy."

"We all try to go out to dinner whenever we can," Desai added about hanging out with the other top 10 contestants. "The fact that we have had to be together for so long has made us all very close."

Desai, who had taken a UNC graduate course in folklore before auditioning for "Idol," opted not to return to graduate school in order to pursue his music career. Legions of online fans rallied around him during the run of the show, coining such Anoop-isms as "Anoopolution," "Anoopr's," "Noop Dog" and "Anoop's Troop."

At press time, Desai was still waiting on a record deal, but he's clear about the kind of album he wants to produce.

"I really want to do a pop album that has an R&B flavor, something with soul," said Desai, who noted that he was listening to Amos Lee, Chrisette Michele and The Black Eyed Peas on his iPod. "I want to make an



TOP LEFT: 'American Idol' star Anoop Desai hangs out with his parents at 'Anoop Day.'

BOTTOM LEFT: The top-six finalist addresses the crowd. ABOVE: Even the youngest fans come out to greet Desai, an American studies and political science alum.

album that's catchy that will chart well on the radio."

UNC history lecturer Jim Ferguson got to know Desai well through his interdisciplinary Honors seminar on food and culture (fondly called "Eats 101" by students.) Ferguson was also an adviser on Desai's undergraduate honors thesis, "Why Barbecue Matters in the South."

"Our class becomes like a quasi-family, and so we in 'Eats 101' followed him together," Ferguson said of Desai's journey on "American Idol." "His work with the UNC Clef Hangers shows that he has an excellent voice. As to his likability, it was my impression that most women (of any age) at UNC had a crush on him!"

The University and the town of Chapel Hill honored Desai with an "Anoop Day" celebration in April, a day that was "very flattering" for the soulful singer.

"I am who I am because I went to Carolina, and I'm never going to forget that," he said. •

ONLINE EXTRAS: More on Anoop Desai at college.unc.edu.

Bold Leadership

Karen Gil brings experience, creative problem-solving to new job as dean

By Kim Weaver Spurr '88

Karen Gil may not see herself as a superhero, but that's how colleagues depicted her in a goodbye video they created when she left her position as chair of the department of psychology.

The video captures a long list of initiatives that Gil, who became the College of Arts and Sciences' new dean on July 1, accomplished when she was chair from 2004 to 2007 — everything from renovating research labs, hiring new faculty and promoting diversity to opening the department's Community Research Center and Clinic.

Don Lysle, current chair of the psychology department, says his longtime colleague and former department chair is a leader who knows how to get things done — both in the short and long term.

"Karen is very smart at developing a plan of action, and she's bold and decisive about implementing it," said Lysle, who served as associate chair when Gil was chair of the department. "She really takes charge, listens to what people have to say, and then finds solutions. No job is insignificant ... People may sometimes say, 'It's not going to happen,' but she just gets it done."

You won't find these accolades on her resumé, but students and colleagues praise Gil, the Lee G. Pederson Distinguished Professor, as "energetic," "fair," "hard-working," "devoted," "experienced," "decisive" and a "top-notch mentor."

She has been at UNC since 1995 and in key leadership roles in the College for eight years. In addition to chairing psychology, Gil has served two stints in the Dean's Office as a senior associate dean — for undergraduate

education (2001-2004) and social sciences and international programs (2007-20009).

UNC Chancellor Holden Thorp, who recruited Gil as senior associate dean of social sciences and international programs when he was dean of the College, said Gil has everything "we're looking for in a leader at Carolina."

"I know from working with her that she has the highest ethical standards," Thorp said. "She is a truly great listener. When folks come to Karen with problems or ideas, I know she will invest all of her boundless energy into devising new approaches and solutions."

Gil knows it will take creative problem-solving to help the College navigate through the challenging economic times ahead. Her top priority is to ensure that the College remains a "vibrant and intellectually stimulating community that brings together the best scholars and teachers to create knowledge, discover new things and educate our students." She hopes to boost the College's international profile and continue to emphasize its core mission of teaching, research and service.

"A liberal arts education is even more important and relevant today," said Gil. "The economy is changing, the job market is changing. We have to prepare our students for many different types of opportunities, to prepare them to have a global sense of

economics, politics, culture and society."

Gil has mentored many undergraduate and graduate students at Carolina. Daniel Hall '09, a Robertson Scholar and undergraduate psychology major, said Gil made a tremendous impact on shaping the course of his college career.

"Karen is very smart at developing a plan of action, and she's bold and decisive about implementing it. She really takes charge, listens to what people have to say, and then finds solutions. People may sometimes say, 'It's not going to happen,' but she just gets it done."

— Don Lysle



Steve Egan

ABOVE: Dean Karen Gil is forging a path to strengthen the College for the future.

"We had a profound mentor-student relationship that resulted in two semesters of independent studies and an honors thesis," he said. "Because of her guidance and investment in my personal development, I have found a niche for myself in breast cancer research, a passion that drives my own research and future professional goals."

In her research, Gil studies stress and how patients cope with illnesses such as breast cancer and sickle cell disease. She is the recipient of a major award from the American Psychological Association for her long-term research contributions on coping strategies used by children with chronic illnesses.

Gil has taught undergraduate and graduate courses in stress management. To de-stress in her own life, she does yoga a couple of times a week, reads and spends time with her family — husband, Tim, and sons Elliot, 16, and Ben, 12.

Leadership both interests and motivates her, and Gil said she is excited about the challenges that lie ahead.

Cecelia Valrie '06, who received her Ph.D. from Carolina and is now an assistant professor of psychology at East Carolina University, thinks Gil will make a great dean for the College. Gil was Valrie's graduate adviser for six years.

"Karen truly cares about the students, faculty and staff that are the heart of UNC," Valrie said. •

UNC study: Don't worry, be happy

People who seed their life with frequent moments of positive emotions increase their resilience against challenges, according to a study by UNC psychologist Barbara Fredrickson and colleagues.

The study, "Happiness Unpacked," appeared in the June 2009 issue of the journal *Emotion*.



ABOVE:
Barbara
Fredrickson

"This study shows that if happiness is something you want out of life, then focusing daily on the small moments and cultivating positive emotions is the way to go," said Fredrickson, the Kenan Distinguished Professor of Psychology. "Those

small moments let positive emotions blossom, and that helps us become more open. That openness helps us build resources to rebound better from adversity and stress."

In the month-long study, 86 participants were asked to submit daily "emotion reports," rather than answering general questions like, "Over the last few months, how much joy did you feel?"

Fredrickson, a leading expert in the field of positive psychology, suggested focusing on the "micro-moments" that can help unlock positive emotions.

"A lot of times we get so wrapped up in thinking about the future and the past that we are blind to the goodness we are steeped in already, whether it's the beauty outside the window or the kind things that people are doing for you." •

ONLINE EXTRAS: *More on Fredrickson's research at www positivityratio.com.*

BIRD NAMED FOR UNC EXPERT

A new species of the oldest known beaked bird — about 120 million years old — has been named for biologist Alan Feduccia, the S.K. Heninger Professor Emeritus.

The fossil of the early Cretaceous period bird, named *Confuciusornis feducciai*, was recently discovered in ancient, dried-up lake deposits in northeastern China. Feduccia helped to describe the genus *Confuciusornis* — named after the Chinese philosopher Confucius — in a paper in the journal *Nature* in 1995. The new bird is the largest known species of *Confuciusornis* discovered so far.

The study describing the new species, published in the April 2009 issue of the *Journal of Ornithology*, says it is dedicated to Feduccia for his contribution to the study of the origin and evolution of birds. Feduccia will add the discovery to a new book he is writing on bird evolution, which he hopes to finish in early 2010. •

ABOVE: This fossil of the oldest known beaked bird was named for UNC biologist Alan Feduccia.



Old rocks yield new clues to evolution mystery

An enduring mystery over what triggered a massive evolutionary jumpstart on planet Earth may be closer to being solved, thanks to a discovery by UNC marine geologist Justin Ries and his colleagues.

The study addresses what's known as the "Cambrian Explosion," which occurred about 540 million years ago and is considered the greatest evolutionary event in the history of animal life.

For hundreds of millions of years leading up to the event, only relatively simple animals existed. Then a burst of evolutionary activity resulted in thousands of new, more complex life forms. Several theories explain this delay in diversification.

Findings by the Ries team published in the August 2009 issue of the journal *Geology* appear to strongly bolster one explanation — that the low oxygen levels



ABOVE: The Zebra River Valley in southern Namibia. LEFT: Marine geologist Justin Ries examined limestone rocks in Namibia.



of the primordial atmosphere and oceans persisted much longer than previously thought, suggesting it was the alleviation of these low oxygen conditions that allowed animal life to flourish.

The UNC researchers examined the chemical signature of limestone rocks in southern Namibia that were deposited in the oceans just before the Cambrian Explosion.

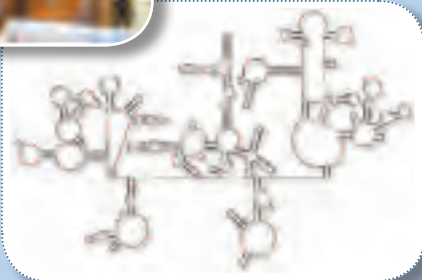
"This period was a game-changer in terms of the evolutionary structure of life," said Ries. "Our findings are consistent with the idea that it occurred because of major changes in the composition of the ocean and atmosphere." •

They cracked the AIDS virus code

The structure of an entire HIV genome has been decoded for the first time by UNC researchers. The results have widespread implications for understanding the strategies that viruses, like the one that causes AIDS, use to infect humans.



Chemist Kevin Weeks (TOP) and colleagues (LEFT) decoded the structure of an entire HIV genome (BOTTOM) for the first time. (Left to right)



The study, the cover story in the Aug. 6, 2009, issue of the journal *Nature*, also opens the door for further research which could accelerate the development of antiviral drugs.

Like the viruses that cause influenza, hepatitis C and polio, HIV carries its genetic information as single-stranded RNA rather than double-stranded DNA. The information encoded in DNA is almost entirely in the sequence of its building blocks. But the information encoded in RNA is more complex; RNA is able to fold into intricate patterns and structures.

Kevin Weeks, a professor of chemistry who led the study, said prior to this new work researchers had modeled only small regions of the HIV RNA genome.

Weeks, who is also a member of the UNC Lineberger Comprehensive Cancer Center, and Joseph M. Watts, a chemistry postdoctoral fellow supported by Lineberger, used technology developed

by Weeks' lab to analyze the architecture of HIV genomes isolated from infectious cultures.

They then teamed up with UNC researchers in the College and the School of Medicine for further analysis: Christopher Leonard in chemistry, Kristen Dang from biomedical engineering, Ron Swanstrom from microbiology and immunology at Lineberger, and Christina Burch in biology. They found that the RNA structures influence multiple steps in the HIV infectivity cycle.

The study was supported by the National Institutes of Health and National Cancer Institute. •

Study participants Ron Swanstrom, Joseph Watts, Kevin Weeks and Christina Burch.

UNC-BEST graduates first batch of N.C. science teachers

An innovative program involving the College of Arts and Sciences and the School of Education graduated its first crop of science majors in May fully equipped to teach in N.C. public schools.

UNC-BEST — Baccalaureate Education in Science and Teaching — is designed to combat a shortage of science and math teachers. It allows students to earn North Carolina teaching licenses while completing their undergraduate degrees in science or math.

The graduates, all North Carolina residents, include physics major **Chase Martin** of Charlotte and biology majors **Monica Kim** and **Devon Lategan** of Chapel Hill, **Jenny Holt** of New London, **Benjamin Lin** of Charlotte, **Aaron Foreman** of Durham, **Erin Burns** of High Point and **Josh Lawrence** of Southport.

Kim changed her career path while earning her degree. "I saw that America is in more need of science and math teachers instead of doctors and lawyers," she said. "I wanted to serve people, and I thought this particular program was a great way to do that."

Lategan said the program persuaded him to go into teaching.

"Teaching was always an interest of mine, but I never seriously considered pursuing it in college," he said. "When I saw the UNC-BEST program, I really felt like it was speaking to me." •



LEFT TO RIGHT:

The inaugural graduates of UNC-BEST: (front row, left to right) Devon Lategan, Monica Kim, Erin Burns, Jenny Holt. (Back row, left to right) Aaron Foreman, Chase Martin, Benjamin Lin, Josh Lawrence.

Personal Investment in UNC

Joe Kampf '66 supports professorship, graduate students in economics

By Jim Magaw '89

Like most UNC College alums, Joe Kampf ('66 economics) is a fervent Carolina basketball fan. But his connection runs deeper than most — he was almost a member of the team.

For four weeks in 1963, at the start of Dean Smith's third season as head coach, Kampf scrimmaged with the UNC team that featured Billy "the Kangaroo Kid" Cunningham. Eventually, Kampf was cut from the squad, but his sense of personal investment in the team and the University has remained strong.

"Personal investment" is a thread that has run throughout Kampf's long and successful business career and has led him back to the College, where he recently established a \$1 million distinguished professorship and a \$125,000 graduate student fund in the department of economics.

The professorship gift will leverage a \$500,000 matching grant from the State of North Carolina Distinguished Professors Endowment Fund to create a \$1.5 million endowment.

"The more personally you're invested in an organization, the more watchful and involved you are," Kampf said. "I consider

"I consider our support of economics at Carolina an excellent investment, and I look forward to staying closely involved with the department's students and faculty."

our support of economics at Carolina an excellent investment, and I look forward to staying closely involved with the department's students and faculty."

A few years after graduating from UNC, Kampf went to work in his father's computer training business — back in the days of mainframes and keypunch machines. The business was based in New York with offices all over the world.

When his father died in 1972, Kampf

sold the computer business and went to work as a senior financial analyst for Daniel K. Ludwig, a shipping magnate who owned more than 300 companies around the world. Kampf traveled a lot during those years, ending up in Brazil, where he helped to manage Ludwig's forest products division. During his nine years working with Ludwig, Kampf said, "I learned the leadership skills I needed to be successful in life."

After leaving Ludwig's organization in 1981, Kampf spent five years in the energy sector followed by nine years with billionaire Carl Lindner of Cincinnati selling technology systems and solutions to the federal government. His job travels eventually brought him to Washington, D.C.

In 1996, he formed an equity group that acquired Anteon International Corp., a defense and intelligence technology company. With Kampf as CEO, the company grew rapidly, went public on the New York Stock Exchange and was sold

in 2006 to General Dynamics Corp.

Since then, Kampf has formed a new private equity partnership, CoVant Management Inc., headquartered in

McLean, Va., which has been acquiring other technology companies serving U.S. government interests.

In October 2008, Kampf returned to Chapel Hill for the first time in more than 40 years to speak to students in the economics department. "It was terrific to interact with the students. They were so smart and inquisitive — much more so than I was at their age," Kampf said.

In his remarks to students, Kampf

stressed the importance of working hard, planning well and remembering

to balance family and career. "As you get further along in life, you come to realize that a successful career is very important, but enjoying and sharing what you have is at least as important."

Kampf's son Jason, 32, who works with his father at CoVant, came along to speak with students in the College's minor in entrepreneurship program.

"If I'm the CEO of the family, then Jason is the pure entrepreneur," Joe Kampf said.

As a result of a conversation about the challenges of faculty recruitment and retention with Karen Gil, dean of the College, Kampf decided to establish the Joseph M. and Jason S. Kampf Distinguished Professorship in the Department of Economics.

Kampf was also struck by the role graduate students play on campus, both as instructors and researchers, and wanted to enhance their education. The Kampf Graduate Fund in the Department of Economics will support at least eight students each year with graduate excellence awards, summer research fellowships and travel stipends.

"The graduate student gift was especially important to me because I know that it's financially challenging for students to get out into the real world to gain experience that will make a difference in their careers," Kampf said.

John Akin, department chair, said, "The Kampf funds will have a huge impact on the department's ability to attract and develop outstanding faculty and graduate students." •



ABOVE: Joe Kampf '66

Engaging Students in Research

New Richardson Professor thrives on collaborating with students

By Joanna Worrell Cardwell (M.A. '06)

For Frank Baumgartner's students, classes are just the beginning.

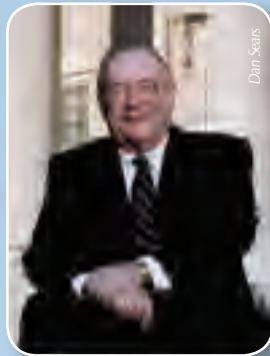
The inaugural Richard J. Richardson Distinguished Professor in Political Science, Baumgartner works hard to involve students in every facet of his research, from basic tasks to co-authoring books and collaborating on other major projects.

Baumgartner came to UNC this fall from Penn State, where he was on the political science faculty for a decade. A Detroit native who earned all of his academic degrees from the University of Michigan, he previously held academic positions at the University of Iowa and Texas A&M University. He is a leading expert on the impact of lobbying groups on public agenda setting, policymaking and governance, with more than eight books and numerous journal articles to his credit.

He has been honored several times for his teaching, particularly at the graduate level. In 2005, he was voted the best graduate student adviser in the political science department by Penn State graduate students, and he received the annual mentoring award that same year from the American Political Science Association.

These are fitting accomplishments for the professor holding the Richardson Professorship. Richardson, who retired in 2000 after 31 years as a professor and provost at UNC, is known as a beloved teacher who helped countless students and colleagues reach success in business, academics and public service. Alumni and friends of Richardson created the professorship to honor his legacy as a teacher, mentor and friend.

Tom Uhlman (M.S. 1971, Ph.D. 1975), a former student of Richardson's



Dan Sears



FAR LEFT: The Richard J. Richardson Professorship is named for the former political science professor and provost who spent 31 years at UNC.

LEFT: Frank Baumgartner, the new Richardson Professor, is a leading expert on the impact of lobbying groups on public agenda setting.

ABOVE: When Baumgartner (fourth from left) found out he was coming to UNC, he bought Carolina T-shirts for his nine nephews.

and the professorship's lead donor, is glad to see someone of Baumgartner's caliber holding the professorship named for his mentor and friend.

"I'm excited that the department has recruited such an outstanding faculty member to become the first Richardson professor," he said.

Baumgartner will jump right into his teaching responsibilities this fall as he takes on courses designed for everyone from freshmen to graduate students. He will lead a first-year seminar on interest groups and lobbying in Washington, as well as a class for upperclassmen on policy change in U.S. politics. He also will teach a graduate seminar on agenda setting and policymaking in the U.S. and Europe.

In all of his courses, Baumgartner said, he will strive to make research an active part of the discussion.

"Students are interested in how people do research," he said. "Since I teach courses on the same topics as my research, for the most part, I try always to integrate into class discussion some examples or illustrations, or explanations of how we do the research, that lead to the conclusions that students read about in their books."

One of Baumgartner's most well-known endeavors is the Policy Agendas Project (www.policyagendas.org), which he created with Bryan Jones, a professor at the

University of Texas at Austin. The online initiative, supported by the National Science Foundation, provides comprehensive databases for analysis of every congressional hearing, law, bill introduced, Supreme Court decision, executive order and more since 1947. The site is available to the public and is widely used as a teaching tool for American government and interest-group politics.

Baumgartner estimates that the project has involved more than a hundred undergraduates and dozens of graduate students since it first started. Many students start out with relatively simple tasks, and those who show an interest in the work often take on much bigger roles in the research.

"I always try to find more supervisory or ambitious or complicated jobs for those students who show the knack for it," he said.

As the Richardson Professor, Baumgartner looks forward to continuing and expanding his work with students. He is currently working to help several other countries develop their own version of the Policy Agendas Project, and he is beginning a new project on lobbying in the European Union. He also hopes to expand his research on the issue of the death penalty.

"There will be no shortage of projects here and there for students to get involved in, if they are focused and interested," he said. •



A guitar named Lucille

"In '49, I was playing in a place called Twist, Arkansas. It's about forty-five miles northwest of Memphis, Tennessee. We had a good time there every Friday and Saturday night. In the wintertime, we had a big container — looked like a garbage pail — and we would sit it in the middle of the floor. They would fill it about half full with kerosene — down home they call it coal oil — and they would light this fuel. ...

This particular night, two guys started fighting, and one of them knocked the other one over on this container of kerosene. ... Everybody started making for the front door ... But when I got on the outside, I remembered that I'd left my guitar inside and I went back for it. ... I almost lost my life trying to save my guitar. The next day we found that two men got trapped in rooms above the dance hall and burned to death. We also found that these same two men were fighting about a lady, and we learned that the lady's name was Lucille. I never did meet her, but I named my guitar Lucille to remind me never to do a silly thing like that again."

— B.B. King, from *Give My Poor Heart Ease: Voices of the Mississippi Blues* by William Ferris.

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- **Give My Poor Heart Ease: Voices of the Mississippi Blues** (UNC Press) by William Ferris. Throughout the '60s and '70s, folklorist William Ferris toured his home state of Mississippi, documenting the voices of African Americans as they spoke about and performed the blues. B.B. King, Willie Dixon and other artists' stories are told through personal reflections, photographs and a companion DVD and CD. Ferris, the Joel R. Williamson Eminent Professor of History, is senior associate director of the Center for the Study of the American South.

- **The Supreme Court in American Politics** (Palgrave Macmillan Press) by Isaac Unah. This book gives readers a firm understanding of how the Supreme Court (a center of power and controversy) works — and the role it plays in people's lives as the justices patrol the boundaries of the U.S. Constitution. Unah is associate professor of political science.

- **Abandon** (St. Martin's Minotaur) by Blake Crouch (English and creative writing '00). On Christmas Day in 1893, every man, woman and child in a remote mining town disappears. Then, 113 years later, a leading history professor and his journalist daughter

venture into the abandoned town so they can discover what happened.

- **The New Encyclopedia of Southern Culture, Volume 14: Folklife** (UNC Press), edited by Glenn Hinson and William Ferris. A broad range of Southern folk traditions is examined in this volume, including car culture, funerals, hip-hop, roadside memorials, powwows and hunting dogs. Ferris is a UNC historian. Hinson is associate professor of folklore and anthropology.

- **Sultana: Surviving the Civil War, Prison and The Worst Maritime Disaster in American History** (HarperCollins) by Alan Huffman. This account of human endurance explores the sinking of a steamboat in 1865 on the Mississippi River — and what it takes to survive both prolonged difficulties and cataclysmic disasters. Huffman attended UNC from 1974-1975.

- **Born Round: The Secret History of a Full-Time Eater** (Penguin Press) by Frank Bruni (English '86). This brutally honest, hilarious and endearing memoir details how *The New York Times'* restaurant critic has had



a life-long battle of the bulge, struggling with over-eating since childhood. He discusses how an inability to control hunger — manifested in bulimia at UNC, convenience store binges and bouts of sleep eating — defined his life.

- **Faith Makes Us Live: Surviving and Thriving in the Haitian Diaspora** (University of California Press) by Margarita A. Mooney. Using fieldwork in Haiti and in three cities of the Haitian diaspora — Miami, Montreal and Paris — Mooney offers a vivid portrait of the power of the Catholic faith for immigrants. She is an assistant professor of sociology.

• **Jesus Interrupted: Revealing the Hidden Contradictions in the Bible (And Why We Don't Know About Them)** (*HarperOne*) by Bart D. Ehrman. A new book by *New York Times* bestselling author Ehrman presents a provocative examination of the New Testament that will have readers rethinking what they believe to be true about the life of Jesus and the authors of the gospels. Ehrman is James A. Gray Distinguished Professor of Religious Studies.

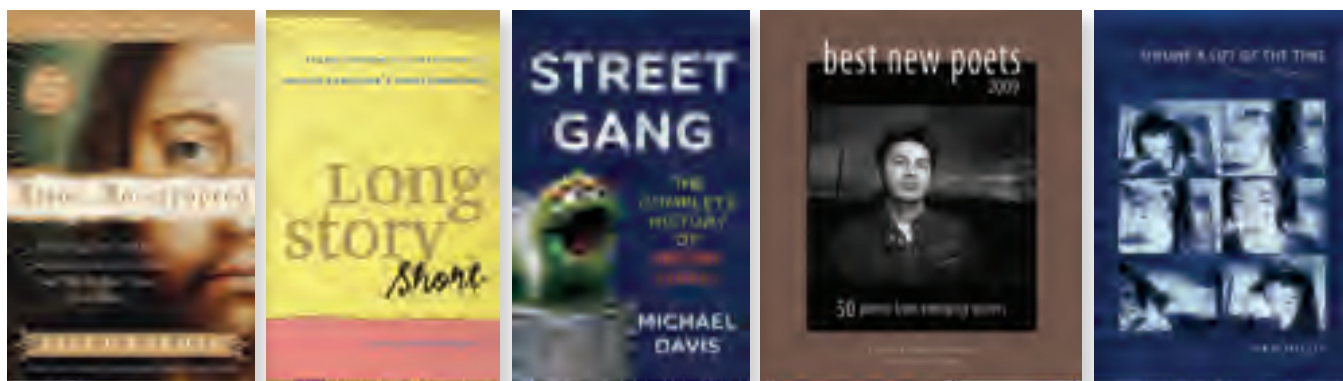
• **Long Story Short: Flash Fiction by Sixty-five of North Carolina's Finest Writers** (*UNC Press*), edited by Marianne Gingher. This extraordinary collection of short-short

the show's evolution from its inspiration in the Civil Rights Movement through many ups and downs — from Nixon trying to cut its funding to the rise of Elmo.

• **Best New Poets 2009: 50 Poems from Emerging Writers** (*University of Virginia Press*), edited by Kim Addonizio and Jeb Livingood. This fresh, eclectic anthology assures the reader that poetry, even in a generation of text messaging, Facebook and iPods, is still alive and well. Three UNC poets are featured: Matt Poindexter '10, Caitlin Doyle '06 and Andrea Young '94.

that shook the world — the epic clash between Europe and the Ottoman Turks that ended the Renaissance and brought Islam to the gates of Vienna. Reston, who taught creative writing at UNC from 1971 to 1981, is also the author of *The Conviction of Richard Nixon* (2007).

• **Lucky, Lucky** (*Finishing Line Press*) by Nina Riggs. The poems in Riggs' first chapbook exalt and lament the precariousness of life, and the large and small anxieties that surround that — from traveling abroad to the first loss of a tooth and new motherhood. Riggs is a 1999 alumna of the creative writing program



stories, each told in a “flash,” includes pieces by some of North Carolina's best writers, many of them UNC alums and faculty, including Daphne Athas, Doris Betts, Fred Chappell, Sarah Dessen, Pam Durban, Clyde Edgerton, Jill McCorkle, Robert Morgan, Randall Kenan, Bland Simpson, Lee Smith, Elizabeth Spencer and Daniel Wallace. Gingher is a professor of English and comparative literature.

• **Street Gang: The Complete History of Sesame Street** (*Viking*) by Michael Davis (psychology '74). This compelling behind-the-scenes story of the creation of the pioneering educational TV program traces

• **Online: A Lot of The Time** (*Duke University Press*) by Ken Hillis. A wedding ceremony in a virtual world. Online memorials commemorating the dead. A coffee klatch attended by persons thousands of miles apart via Webcams. Hillis, associate professor of media studies, explores rituals that would formerly have required participants to gather in one place, but now are reformulated for the Web.

• **Defenders of the Faith: Charles V, Suleyman the Magnificent, and the Battle for Europe, 1520-1536** (*Penguin Group*) by James Reston Jr. (philosophy '63). A bestselling author recounts 16 years

and a faculty member in the department of English and comparative literature.

• **Resilience: Reflections on the Burdens and Gifts of Facing Life's Adversities** (*Broadway Books*) by Elizabeth Edwards (English '71, J.D.'77). Edwards has faced the death of a son, a battle with breast cancer and her husband's infidelity. She draws on the experiences of people she met along the way, crafting an unsentimental but inspirational meditation on dealing with life's biggest challenges.

ONLINE EXTRAS: More on books at college.unc.edu.

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Roy Blount Jr.

• **Oct. 6:** Roy Blount Jr., the American humorist, writer and panelist on NPR's "Wait, Wait ... Don't Tell Me!" for the Thomas Wolfe Prize and Lecture. 7:30 p.m., Carroll Hall



Andrew Delbanco

• **Oct. 29:** Andrew Delbanco, distinguished professor of humanities and director of American studies at Columbia University, discusses "How Could Anyone Defend Slavery? Moral Crisis in Antebellum America," the John W. Pope Lecture on Renewing the Western Tradition. 7 p.m., Gerrard Hall

• **Feb. 1:** James Hansen, the internationally recognized leading expert on global climate change and director of NASA's Goddard Institute for Space Studies, presents the Frey Foundation Distinguished Visiting Professor Lecture. 7 p.m., Memorial Hall

• **March 24:** Edward P. Jones, the Pulitzer Prize-winning author, presents a public reading as the Morgan Writer-in Residence. 7:30 p.m., Carroll Hall

• **April 15:** Iain Fenlon, distinguished professor of historical musicology at the University of Cambridge and fellow at King's College, presents the John W. Pope Lecture on Renewing the Western Tradition. 7 p.m., Gerrard Hall

Details will be posted online at: college.unc.edu.

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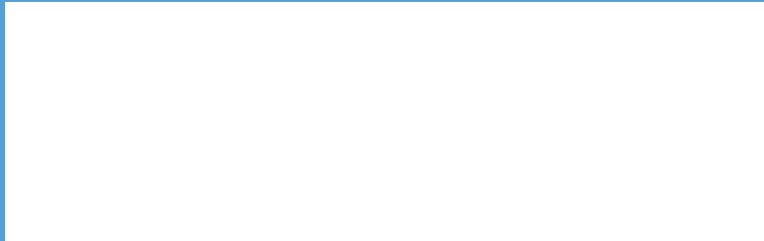
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